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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,310	01/21/2000	Gary Stephenson	7922	5677

27752 7590 03/28/2012
THE PROCTER & GAMBLE COMPANY
Global Legal Department - IP
Sycamore Building - 4th Floor
299 East Sixth Street
CINCINNATI, OH 45202

EXAMINER

ROBERTS, LEZAH

ART UNIT	PAPER NUMBER
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1612

MAIL DATE	DELIVERY MODE
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03/28/2012

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/489,310	Applicant(s) STEPHENSON, GARY	
	Examiner LEZAH ROBERTS	Art Unit 1612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 23, 25, 28 and 30 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 23, 25, 28 and 30 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Applicants' arguments in the Request for Continued Examination, filed February 23, 2012, have been fully considered. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims

Claim Rejections - 35 USC § 103 – Obviousness (Previous Rejection)

Claims 23-31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kohl et al. (USP 3,681,091) as evidenced by. Claims 26, 27, 29 and 31 are cancelled.

The rejection has been reiterated below, wherein the rejection has been modified to encompass the instant claims and not previously cancelled claims.

Rejection

The prior art discloses fruit juices which comprise 0.1 to 5 weight percent linear sodium or potassium polyphosphates having 14 to 100 repeating units (preferably 16 to 37). See the passage spanning col. 1, lines 60 to col. 2, line 9, and see also the

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passage spanning col. 2, line 51 to col. 2, line 6. Note also that the working examples comprehensively test polyphosphates having various specific chain lengths within that range. (See especially Table VIII and XI following cols. 13 and 14). The juices are acidic in nature, having low pH's. See Example 24 at col. 13 (orange juice having pH 4.10) and col. 15, line 11 (apple cider having pH 3.6, which anticipates "about" 3.5 as recited by instant claim 18). The prior art compositions do not appear to contain any substantial quantities of calcium, fluoride or orthophosphate. Regarding the requirement of instant claims 13, 19, 25 and 30, it is self-evident that fruit juices such as apple and orange already contain, inherently and naturally, sweeteners within the range of 0.1 to 20 percent by weight.

Kohl et al differs from the instant claims insofar as it does not disclose the directing step of the instant claims.

The Board of Appeals states "The Appellant recognizes that the average consumer of an acidic beverage, e.g., a cola product, appreciates the need for enamel erosion control." Therefore the Board of Appeals concludes "it is reasonable to find that the average consumer of the acidic beverages of the prior art would also appreciate the need for enamel erosion control and thus be "in need of" enamel erosion control". See Decision page 7, paragraph 2. Based on the above recognition/appreciation, it would have been obvious to have been "directed" to drink the prior art beverages for that purpose.

Response to Arguments

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Applicant's Arguments

Applicant argues that all previous arguments in support of patentability continue to apply, but will not be repeated herein for the sake of brevity.

Applicant argues that the prior art must be considered in its entirety, including disclosures that teach away from the claims. It is further argued that it is entirely counter-intuitive and, hence, non-obvious, to use an acidic beverage of the present type to treat teeth that have been eroded by acid. The claimed method for treating dental erosion caused by exposure of the teeth to acid requires a particular patient population and a particular phosphate agent that is administered to such patient population at an acidic pH, neither of which are explicitly or inherently disclosed by the combination of cited documents.

Applicants assert that Reussner et al. discloses that sodium hexametaphosphate or sodium trimetaphosphate did not produce significant protective effects against molar erosion. It is further noted that MCP would be more desirable than other phosphates as a beverage supplement from a nutritritional standpoint. Further sodium phosphates salts did not produce significant decreases in molar erosion unless they contained fluoride. Thus Reussener et al. teach away from the instant claims. Applicant further asserts that inventing a method for producing an effective product in the face of art which strongly suggests that such a method would produce unacceptable results, is the very antithesis of obviousness.

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Examiner's Response

The Examiner submits that all previous responses to Applicant's previous arguments continue to apply.

The Examiner submits that although the claims are amended, the instant claims read on an individual imbibing the juices of Kohl comprising citric acid and hexametaphosphate for other purposes. Erosion of the teeth is primarily caused by acid from food. Therefore a patient with natural teeth would have some erosion caused by acid over the course of their lives and would be considered the patient population encompassed by the instant claims. Further, the instant claims do not recite a specific amount of polyphosphates. Thus the claims still encompass all individuals with natural teeth who drink acidic beverages every day, such as the acidic beverages of the prior art, as indicated in the Board Decision page 7, paragraph 2. Therefore the claims still read on the patient population that drinks apple juice everyday having natural teeth.

In regard to Reussner et al., a copy of this reference does not appear to be already of record and Applicant does not appear to have provided a copy with the response. Therefore the Examiner cannot determine what exactly is in the compositions disclosed by Reussner et al. Further, in regard to considering the prior art as a whole, the MPEP section that Applicant asserts appears to refer to the prior art of record and combining two reference where one teaches away from the other. This is not the case here. Furthermore, the compositions of Kohl et al. specifically disclose citric acid and hexametaphosphate, and therefore one of ordinary skill in the art would reasonably conclude that the compositions would treat dental erosion.

Further although the reference does not explicitly state dental erosion, the same method steps used for treating dental erosion of the instant claims are the same steps one would use to drink apple juice. Considering, as stated above, that all persons with natural teeth would be in need of treatment of dental erosion because of food, the claims are not distinguished from the prior art.

Claim Rejections - 35 USC § 103 – Obviousness (New Rejection)

Claims 23, 25, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calderas et al. (US 5,431,940) as evidenced by Grunberg et al. (Scandinavian Journal of Nutrition/Naringsforskning, already of record).

Calderas et al. disclose noncarbonated beverages including fruit juices having a pH between 2.5 and 4.5 comprising a polyphosphate. One embodiment comprises water, fruit juice concentrate, sodium hexametaphosphate, HFCS-55 (a sweetener) and citric acid (used to titrate the compositions to a pH of 3.3) (Embodiment 1). Fruit juices include orange juice, apple juice, grape juice, grapefruit juice and currant juice, which are juices imbibed daily by certain populations (as evidenced by Gurnberg et al.)

The prior art compositions do not contain any substantial quantities of calcium, fluoride or orthophosphate.

Calderas et al differ from the instant claims insofar as it does not disclose the directing step of the instant claims.

The compositions of Calderas et al. are the same as those disclosed by the instant specification, Example 1 (the instant specification), therefore one of ordinary skill

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in the art would reasonably conclude that these compositions would also treat dental erosion, with a high expectation of success.

Further, the Board of Appeals states "The Appellant recognizes that the average consumer of an acidic beverage, e.g., a cola product, appreciates the need for enamel erosion control." Therefore the Board of Appeals concludes "it is reasonable to find that the average consumer of the acidic beverages of the prior art would also appreciate the need for enamel erosion control and thus be "in need of" enamel erosion control". See Decision page 7, paragraph 2. Based on the above recognition/appreciation, it would have been obvious to have been "directed" to drink the prior art beverages for that purpose.

Conclusion

Claims 23, 25, 28 and 30 are rejected.

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEZAH ROBERTS whose telephone number is (571)272-1071. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frederick F. Krass can be reached on 571-272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lezah W Roberts/
Examiner, Art Unit 1612